Title: DUAL-STAGE COMPARATOR UNIT

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IN THE CLAIMS

A detailed listing of the pending claims is shown below. No claims are amended. New claims 35-43 are added.

1. (Previously Amended) A comparator unit comprising:

a first amplifier stage including a differential amplifier having a pair of input nodes and a pair of output nodes, a switch connected across the pair of output nodes, and a non-linear load connected across the pair of output nodes; and

a second amplifier stage coupled to the pair of output nodes, the second amplifier stage including an input pair of isolated gate field-effect transistors and a cross-coupled pair of isolated gate field-effect transistors, wherein each of the cross-coupled pair of isolated gate field-effect transistors is coupled in parallel with a corresponding one of the input pair of isolated gate field-effect transistors.

- 2. (Origina) The comparator unit of claim 1, wherein the differential amplifier comprises a pair of differential pairs of isolated gate field-effect transistors.
- 3. (Original) The comparator unit of claim 2, wherein the switch comprises an electronically controllable switch.

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- 4. (Original) The comparator unit of claim 3, wherein the electronically controllable switch comprises an isolated gate field-effect transistor.
- 5. (Original) The comparator unit of claim 4, wherein the non-linear load comprises a pair of cross-coupled isolated gate field-effect transistors.
- 6. (Original) The comparator unit of claim 5, wherein each transistor in the pair of cross-coupled isolated gate field-effect transistors comprises an n-channel isolated gate field-effect transistor.

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- 7. (Original) The comparator unit of claim 1, wherein the second amplifier stage comprises a non-linear amplifier.
- 8. (Previously Amended) The comparator unit of claim 7, wherein the second amplifier stage includes a pair of second stage output nodes and a switch connected across the pair of second stage output nodes.

9. (Original) The comparator unit of claim 1, wherein the differential amplifier comprises a differential pair of isolated gate field-effect transistors.

10.-34. (Cancelled)

35. (New) A comparator unit comprising:

a first amplifier stage including a differential amplifier having a pair of input nodes and a pair of output nodes, a switch connected across the pair of output nodes, and a non-linear load connected across the pair of output nodes; and

a second amplifier stage including an input pair of isolated gate field-effect transistors and a cross-coupled pair of isolated gate field-effect transistors, the input pair of isolated gate field-effect transistors having a pair of gates, wherein the pair of gates are coupled to the pair of output nodes and each of the cross-coupled pair of isolated gate field-effect transistors is coupled in parallel with a corresponding one of the input pair of isolated gate field-effect transistors.

- 36. (New) The comparator unit of claim 35, wherein the differential amplifier comprises a pair of differential pairs of isolated gate field-effect transistors.
- 37. (New) The comparator unit of claim 36, wherein the switch comprises an electronically controllable switch.

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- 38. (New) The comparator unit of claim 37, wherein the electronically controllable switch comprises an isolated gate field-effect transistor.
- 39. (New) The comparator unit of claim 38, wherein the non-linear load comprises a pair of cross-coupled isolated gate field-effect transistors.
- 40. (New) The comparator unit of claim 39, wherein each transistor in the pair of cross-coupled isolated gate field-effect transistors comprises an n-channel isolated gate field-effect transistor.

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- 41. (New) The comparator unit of claim 35, wherein the second amplifier stage comprises a non-linear amplifier.
- 42. (New) The comparator unit of claim 41, wherein the second amplifier stage includes a pair of second stage output nodes and a switch connected across the pair of second stage output nodes.
- 43. (New) The comparator unit of claim 35, wherein the differential amplifier comprises a differential pair of isolated gate field-effect transistors.